TA-F303ESD/F630ESD

SERVICE MANUAL



Canadian Model
AEP Model
UK Model
TA-F630ESD

E Model

photo: TA-F630ESD

SPECIFICATIONS

Amplifier section

Hem		Cor	ndition	Data
Continuous RMS power outut (both channels driven	4 ohms, 20 H 0.008%	z-20 kHz THD	Canadian, UK, E model	120 W + 120 W (THD 0.01%) (DIN: 160 W + 160 W)
simultaneously)	6 ohms, 20 Hz-20 kHz THD Canadian, UK, E model 0.006%		Canadian, UK, E model	100 W + 100 W (DIN: 120 W + 120 W)
			AEP, West Germany model	95 W + 95 W (DIN: 115 W + 115 W)
	8 ohms, 20 H 0.004%	z-20 kHz THD	Canadian, UK, E model	90 W + 90 W (DIN: 110 W + 110 W)
·			AEP, West Germany model	80 W + 80 W (DIN: 100 W + 100 W)
Power band width (IHF)	8 ohms, THD 0,02%			10 Hz - 100 kHz at 45 W
Dynamic headroom ('78 IHF)	4 ohms			2 dB
	8 ohms			1.2 dB
Total harmonic distortion	8 ohms, at 10	watt output		0.003%
Intermodulation (IM) distortion 60 Hz: 7 kHz = 4:1	4 ohm, at rated output			0.008%
	6 ohms at rated output			0.006%
	8 ohms at rated output			0.004%
Damping factor	8 ohms, 1 kH	8 ohms, 1 kHz		50
Residual noise	network A			less than 90µV
Frequency response	PHONO MM			RIAA equalization curve ±0.2 dB
	TUNER, CD, TAPE 1, 2, 3, DIRECT IN			2 Hz - 200 kHz +0 dB
Input sensitivity	PHONO	PHONO MC		0.17 mV, 100 ohms.
	MM			2.5 mV, 50 kohms
TUNER, CD, DIRE ADAPTOR IN			E 1, 2, 3	150 mV, 50 kohms
S/N (network)	PHONO	PHONO MC		68 dB 76 dB* (A)
		ММ		80 dB 87 dB* (A)
78 (IHF)	TUNER, CD, ADAPTOR IN	DIRECT IN, TAP	E 1, 2, 3	84 dB 105 dB (A)

-Continued on page 2-





Item	Condition	Data
Output voltage impedance	REC OUT 1, 2, 3 ADAPTOR OUT	150 mV, 1 kohm
	HEADPHONES	25 miliwatts (at 8 ohms) Accepts low and high impedance headphones.
Tone controls	BASS, at 100 Hz	±6 dB (turnover freq. 400 Hz)
	TREBLE, at 10 kHz	±6 dB (freq. 4 kHz)

DA converter section

Item	Condition	Data
Input sensitivity	DIGITAL COAXIAL IN	0.5 Vp-p, ±20%, 75 ohms
	DIGITAL OPTICAL IN 1, 2	TOSLINK
Output voltage impedance	DIGITAL OPTICAL 2 REC OUT	TOSLINK
Output voltage	DA converter	2 V

General

System Preamplifier section: Low-noise high gain NFB type equalizer amplifier, passive type direct tone control Power amplifier section: Pure-complementary SEPP power amplifier

Power requirements

AEP, West Germany model: 220 V AC, 50 Hz

U K model: 240 V AC, 50 Hz E model: 120 V, 220 V or 240 V AC

adjustable, 50/60 Hz

Canadian model: 120 V, AC, 50/60Hz

Power consumption

Canadian model	510 VA 220 W	
AEP, UK, West Germany model		
UK model	600 W	
E model	340 W	

AC outlet

Canadian model	2 switched, 1 unswitched, 100 watts max. each		
AEP, UK, West Germany model	_		
E model	1 switched, 1 unswitched, 100 watts each		

Dimensions

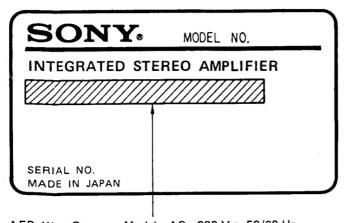
Approx. 430 x 150 x.390 mm (w/h/d) (17 x 5⁷/₈ x 15²/₈ inches)

Weight⁻

Approx. 13.7 kg (30 lbs 4 oz) net

MODEL IDENTIFICATION

- Specification Label -



AEP, West Germany Model: AC: 220 V ~ 50/60 Hz

UK Model: AC: 240 V \sim 50/60 Hz E Model: AC: 120/220/240 V

 $\sim 50/60 \; Hz$

Canadian Model: AC: 120V 60Hz

TABLE OF CONTENTS

<u>Sec</u>	tion <u>Title</u>	<u>Pa</u>	ge
Spe	ecification ·····		1
Mo	del Identification·····		2
Saf	ety Check-Out ·····		2
On	Operating Voltage ·····		3
1. (GENERAL		
1	Parts Identification · · · · · · · · · · · · · · · · · · ·		4
2. I	ELECTRICAL ADJUSTMENTS		5
3. I	DIAGRAMS		
;	3-1. Schematic Diagrammp (Amp Section)	٠.	7
;	3-2. Printed Wiring Boards (Amp Section) · · · · · ·	٠.	11
	3-3. Printed Wiring Boards		
	(D/A Converter Section) · · · · · · · · · · · · · · · · · · ·	٠.	16
	3-4. Schematic Diagram (D/A Converter Section)	•••	18
4.	EXPLODED VIEWS		22
5. 1	ELECTRICAL PARTS LIST	٠.	25

SAFETY CHECK-OUT

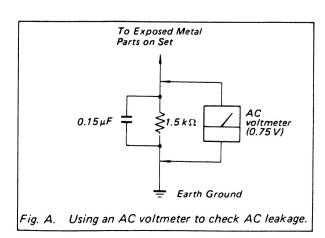
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

- A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
- A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
- 3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



On operating voltage

Before operating the unit, check that the operating voltage of your unit is identical with the voltage of your local power supply.

Where purchased	Operating voltage
UK Model	240 V AC
Canadian Model	120V AC
AEP, West Germany Model	220 V AC
E Model	120 V, 220 V or 240 V AC adjustable by AC voltage selector
	120V 240V 220V VOLTAGE SELECTOR

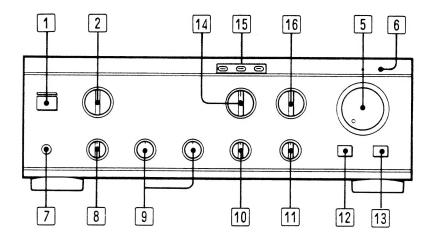
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK A OR DOTTED LINE WITH MARK A ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE A SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL



1 POWER switch and power/standby indicator

Immediately after turning ON the power, the standby indicator lights in red as the built-in muting circuit activates.

When the amplifier stays in a stable operating condition, the indicator lights in green.

The indicator lights in red when the unit detects shorting of circuit of the speaker outputs or in case of short-circuit of the inputs of DC components.

In such a case, disconnect the power source and check the connected components and speaker systems.

2 SPEAKERS selector

Select speaker system A or B, or both.

To use power amplifier or active speaker system connected to the PRE OUT jacks, set the selector to B/ PRE OUT.

For headphone monitoring only, set the selector to OFF.

5 ATTENUATOR knob

Regulates the sound level.

6 MUTING switch and indicator

Generally, keep the switch released (OFF).

Depress the switch to reduce the sound level by 20 dB.

(Output voltage becomes 1/10.)

7 HEADPHONES jack (stereo phone jack)

8 MODE selector

STEREO: For listening to a stereo program. MONO: For listening to a monaural program.

9 BASS and TREBLE controls

10 REC OUT SELECTOR

Selects the program source sent to the REC OUT jacks (rear panel).

When set to DIGITAL, the selection is made with the DIGITL INPUT SELECTOR.

11 BALANCE control

Controls the sound level of left and right speakers.

12 SOURCE DIRECT switch and indicator

Depress the switch. The red indicator lights and the circuits of the tone control, subsonic filter switch , balance control and mode switch are disengaged without regard to the setting of the switches. When this switch is activated, the indicator of the TONE switch does not light.

13 CARTRIDGE selector

Set the selector according to your cartridge.
MM: For moving-magnet type cartridge
MC: For moving-coil type cartridge.

14 DIGITAL INPUT SELECTOR

Selects the desired digital program source. When set to ANALOG, selection is made with the ANALOG INPUT SELECTOR.

15 SAMPLING FREQ (frequency) indicator

When a digital signal is being input correctly, the sampling frequency of the signal is displayed (44.1 kHz is displayed when CD player is being played). The indicator lights in a second after the DIGITAL INPUT is selected and the program source starts at the same time.

16 ANALOG INPUT SELECTOR

Selects the desired analog program source. The selection is made only when the DIGITAL INPUT SELECTOR is set to ANALOG.

PRECAUTI

1. Adjust

2. Alway the po

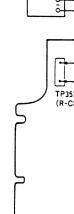
Procedure
Set the A
adjust RT
voltmeter:

IDLING A

Adjustment

digital volt

(DC0. 25V rar



SECTION 2 ELECTRICAL ADJUSTMENTS

PRECAUTIONS

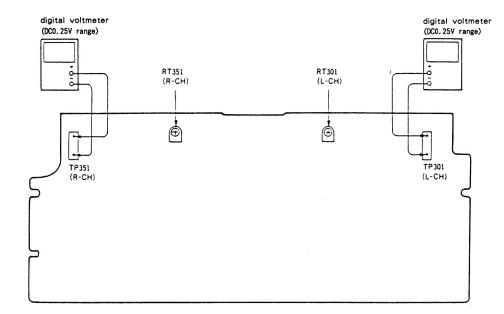
- 1. Adjust the idling after tuning the unit on for about 10-15 minutes, giving it time to warm up.
- 2. Always make sure to adjust the idling when repairing the power amp section or when replacing any parts.

IDLING ADJUSTMENT

Procedure:

Set the ATTENUATOR control as low as possible and adjust RT301 (L-CH) and RT351 (R-CH) so that the voltmeter reads 7mV at TP301 (L-CH) and TP351 (R-CH).

Adjustment Location: power board



nt speakers.

ghts and the er switch disengaged ches. ator of the TONE

age.

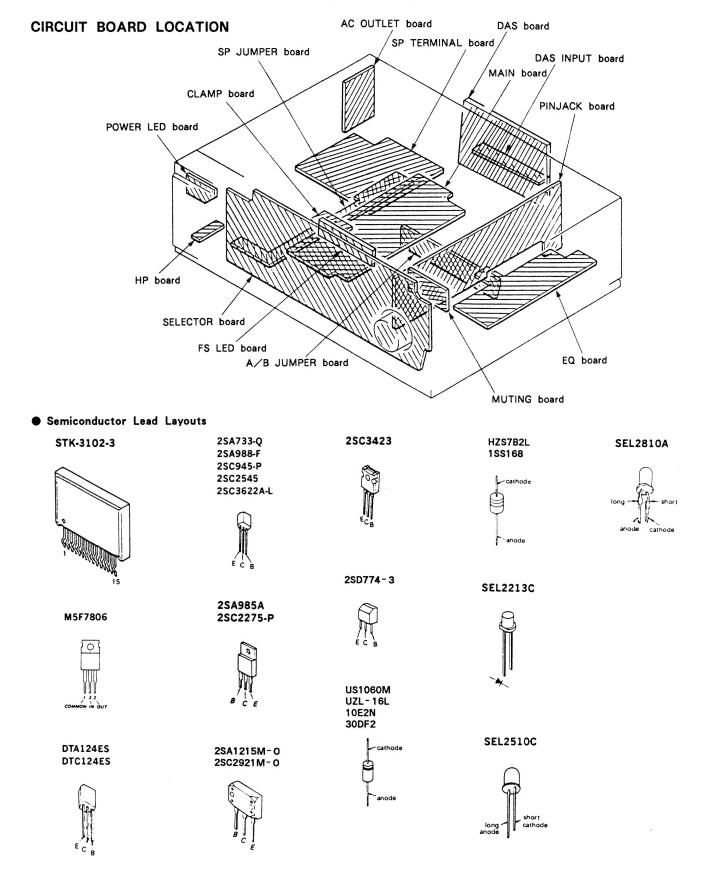
rce. When set to NALOG INPUT

rectly, the played (44.1 kHz is yed).

e DIGITAL INPUT rts at the same

urce. The AL INPUT

SECTION 3 DIAGRAMS



- and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- Components for right channel have same values as for left channel.
- : nonflammable resistor.
- fusible resistor.

Note:

The components identified by mark \bigwedge or dotted line with mark \bigwedge are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spéci-fié.

D

G

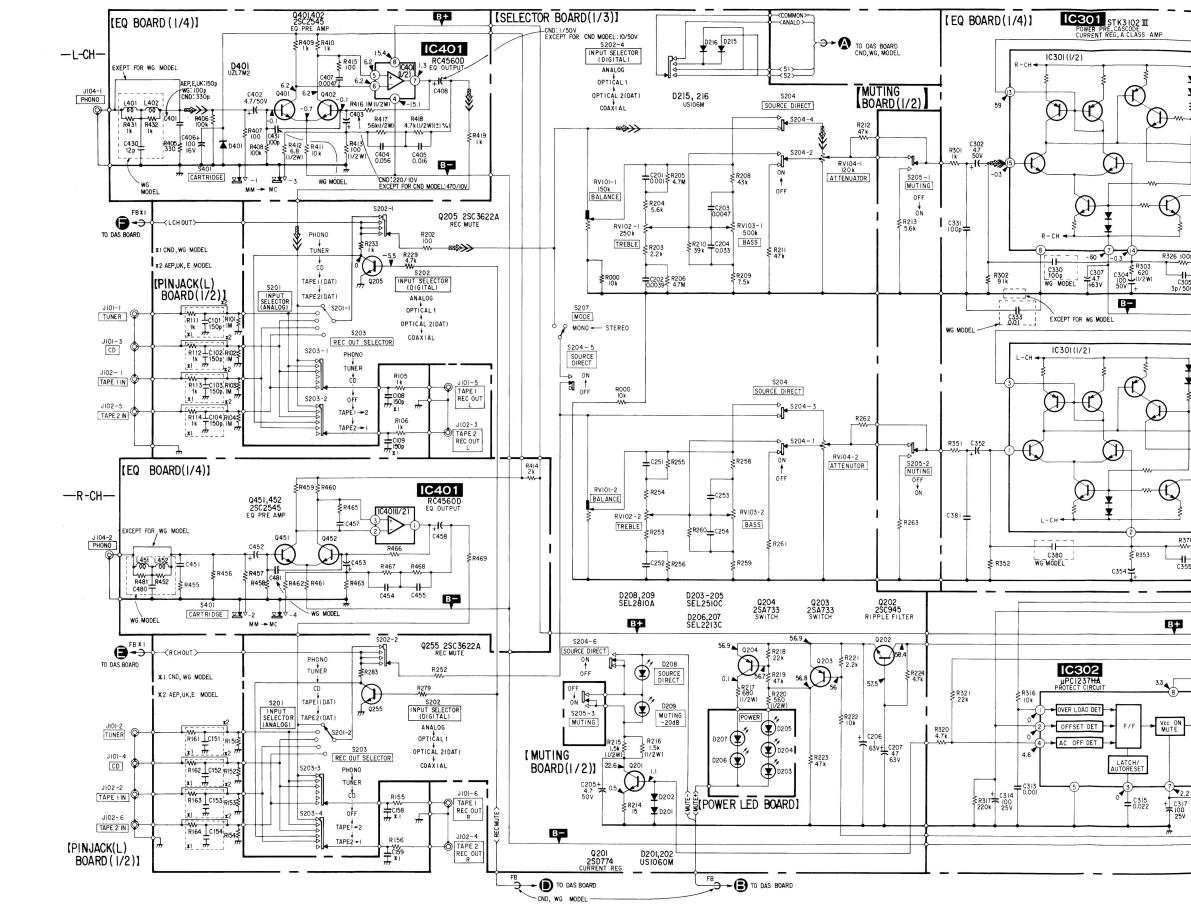
- adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.

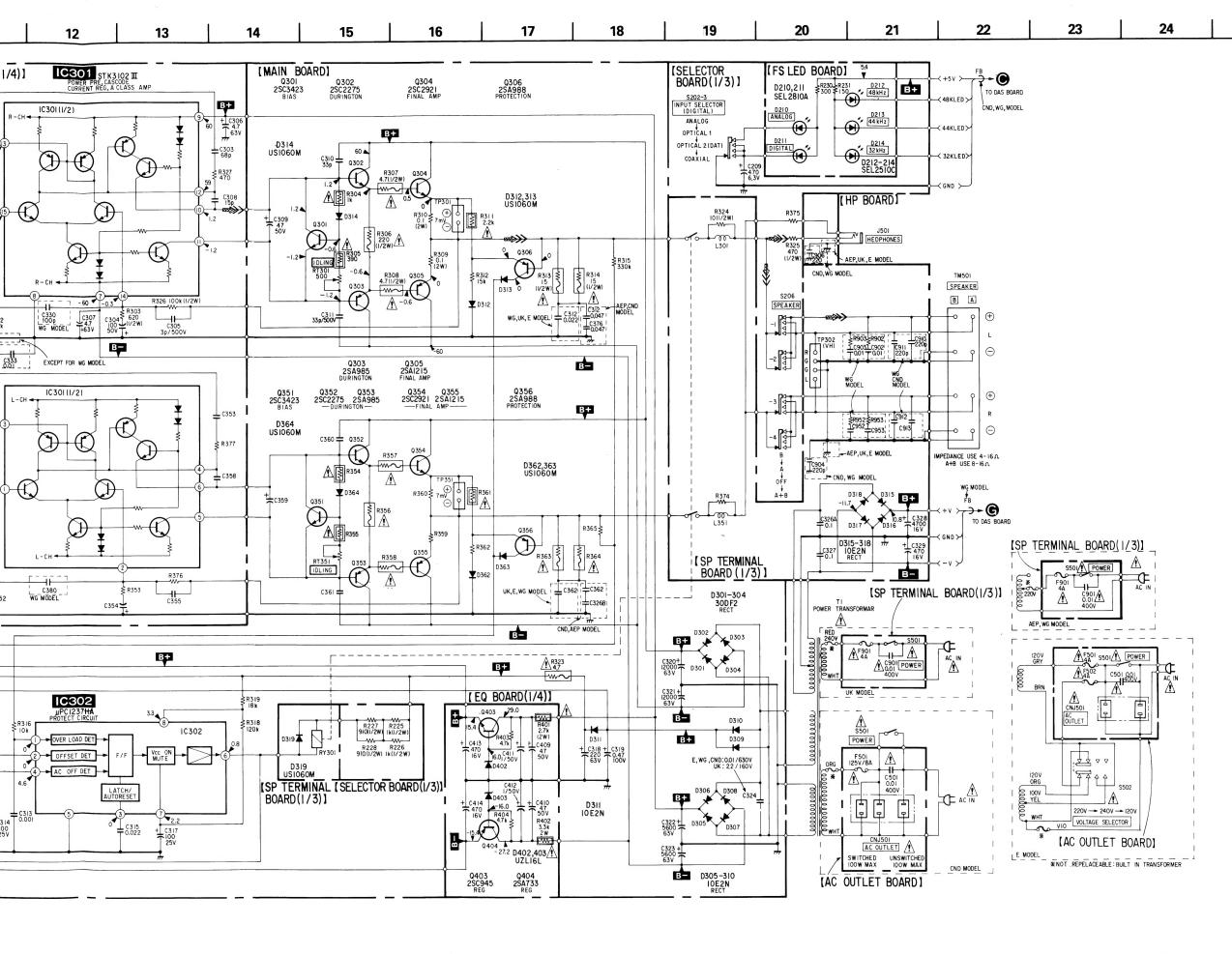
]: PHONO

- · Voltages are taken with a VOM. (Input impedance $10M \Omega$)
- Voltage variations may be noted due to normal production torerances.
- Signal path.

: PHONO

- WG : West Germany • CND : Canadian

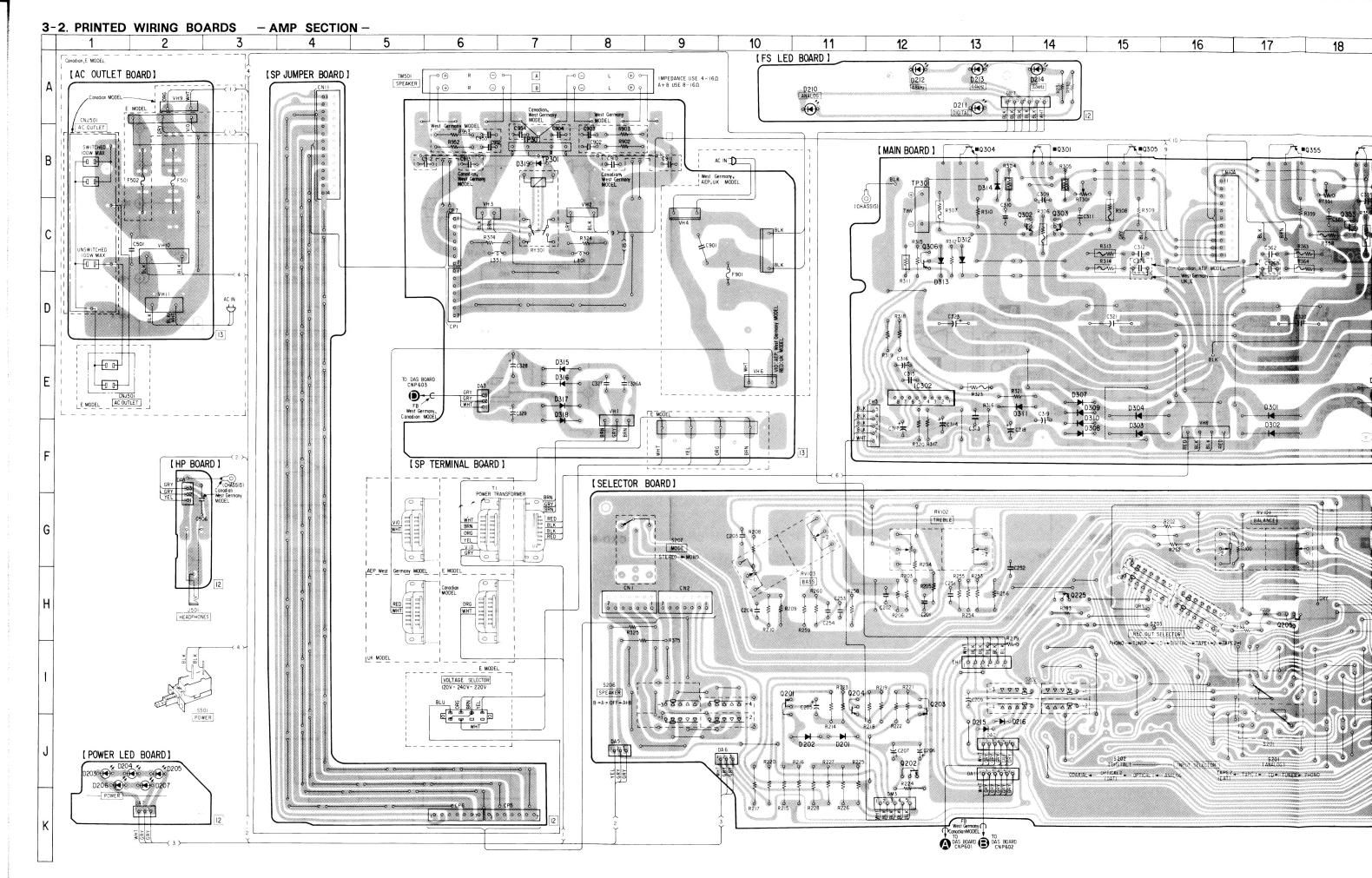


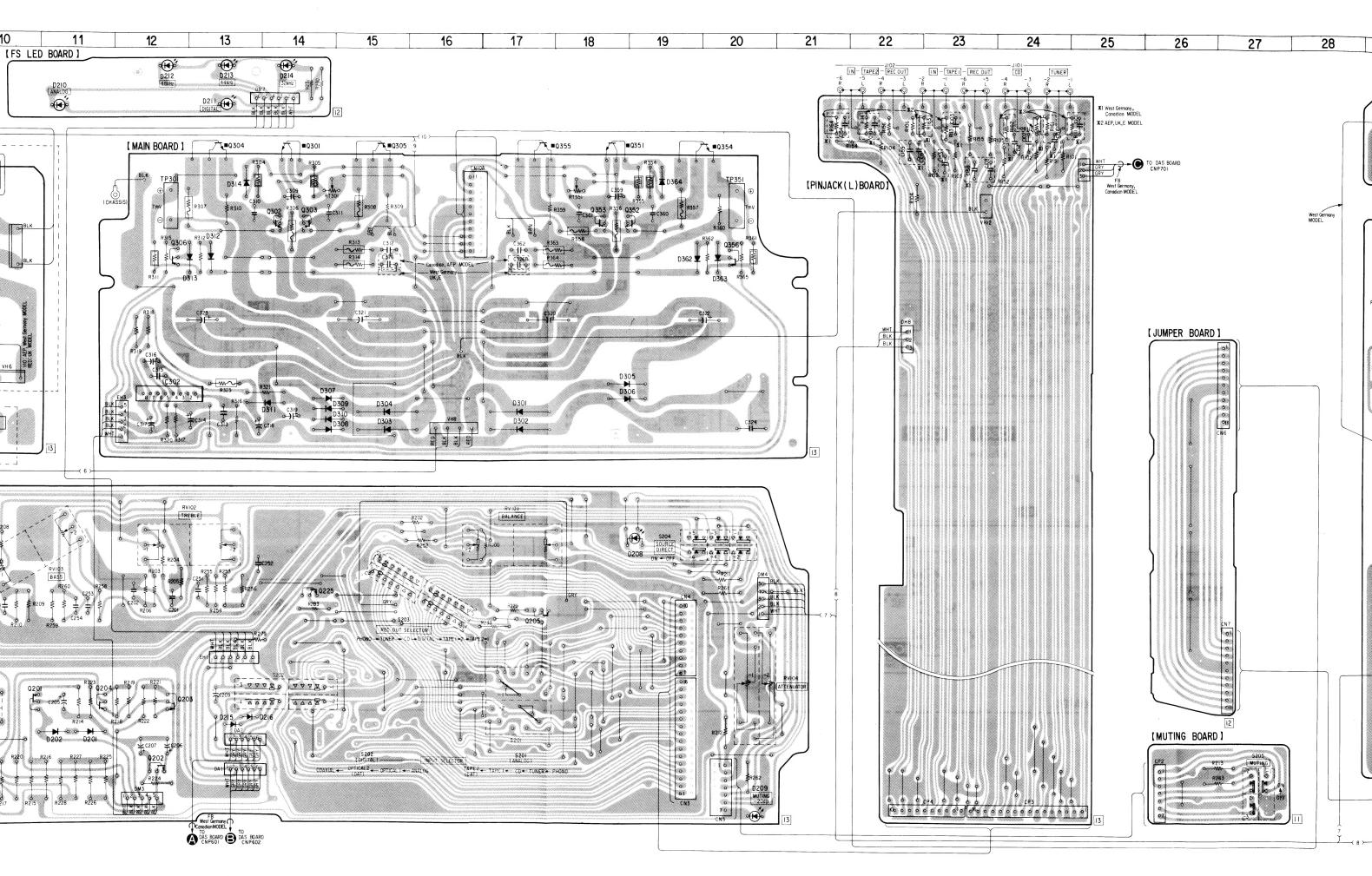


25

26

27





LAUMPER BOARD 1	CUMPER BOARD 1			20 00 01 02
SARD 1 S205 R263 R263	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BOARD) OHB HILL SOLUTION HILL H	TO DAS BOARD GRY WHIT CONTROL TO DAS BOARD CNPTOI TO DAS BOARD CNPTOI TO DAS BOARD CNPTOI TO DAS BOARD CNPTOI TO DAS BOARD TO DAS	THE PER TOP TOP MAN SECTION SE

Semiconductor Location

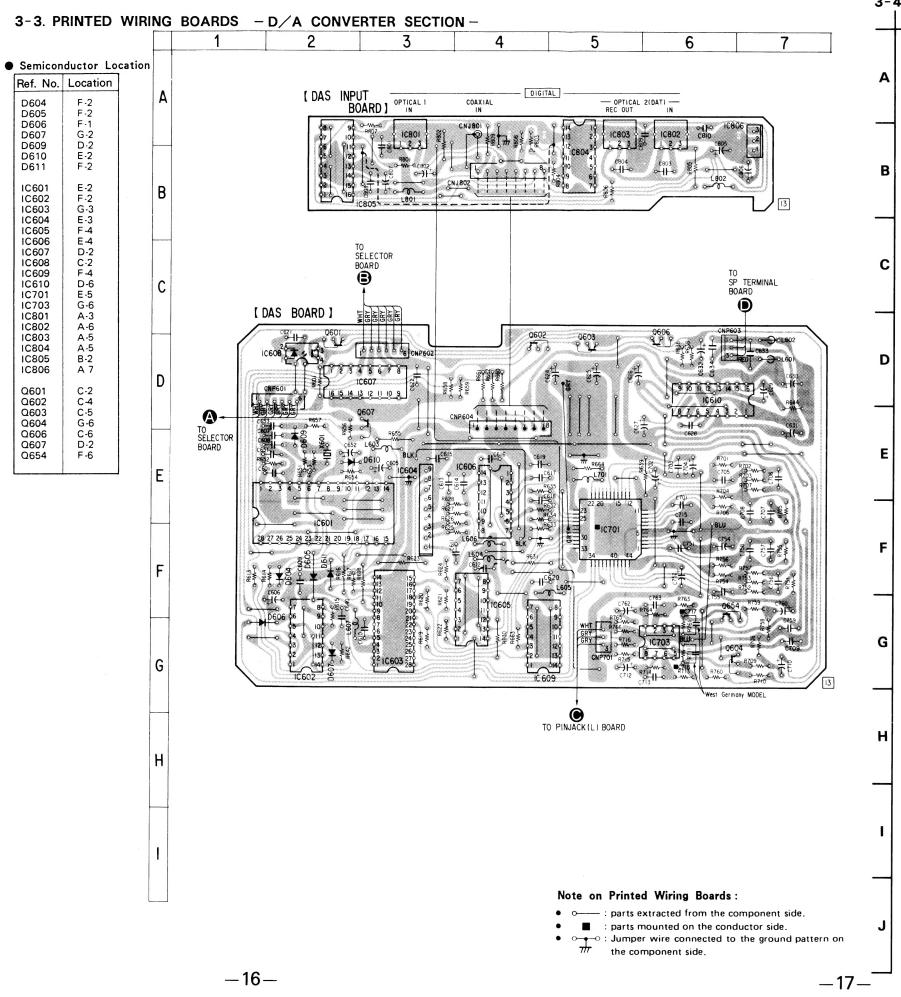
Ref. No.	Location	Ref. No.	Location
Ref. No. D201 D202 D203 D204 D205 D206 D207 D208 D209 D210 D211 D212 D213 D214 D215 D216 D301 D302 D303 D304	J-11 J-11 J-1 J-2 J-2 J-1 J-2 G-19 K-20 A-11 A-13 A-12 A-13 A-14 J-13 E-17 F-17 E-15	Ref. No. D363 D364 D401 D402 D403 IC301 IC302 IC401 Q201 Q202 Q203 Q204 Q205 Q255 Q301 Q302 Q303 Q304	C-20 B-19 F-30 F-30 F-29 I-30 E-12 E-30 I-10 J-12 I-12 I-11 H-17 H-14 B-14 C-14 B-13
D304 D305 D306 D307 D308 D309 D310 D311 D312 D313 D314 D315 D316 D317 D318 D319 D362	E-15 E-18 E-14 F-14 E-14 E-14 E-13 C-13 B-13 E-7 E-7 E-7 E-7	Q304 Q305 Q306 Q351 Q352 Q353 Q354 Q355 Q356 Q401 Q402 Q403 Q403 Q451 Q452	B-13 B-15 C-12 B-18 C-18 C-18 B-17 C-20 D-30 D-30 F-31 F-29 D-29

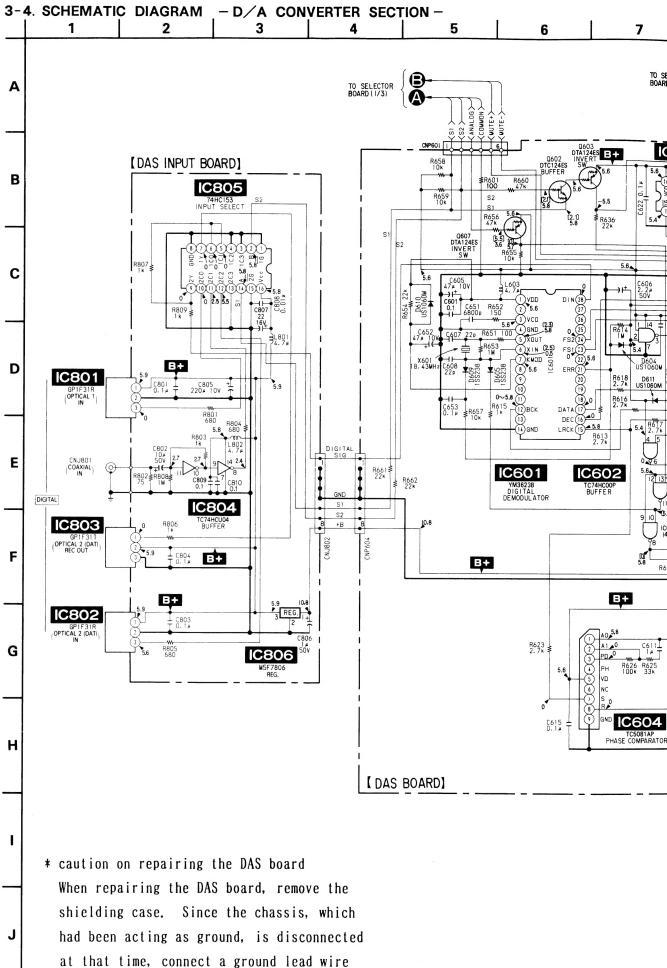
Note on Printed Wiring Boards:

• o---: parts extracted from the component side.

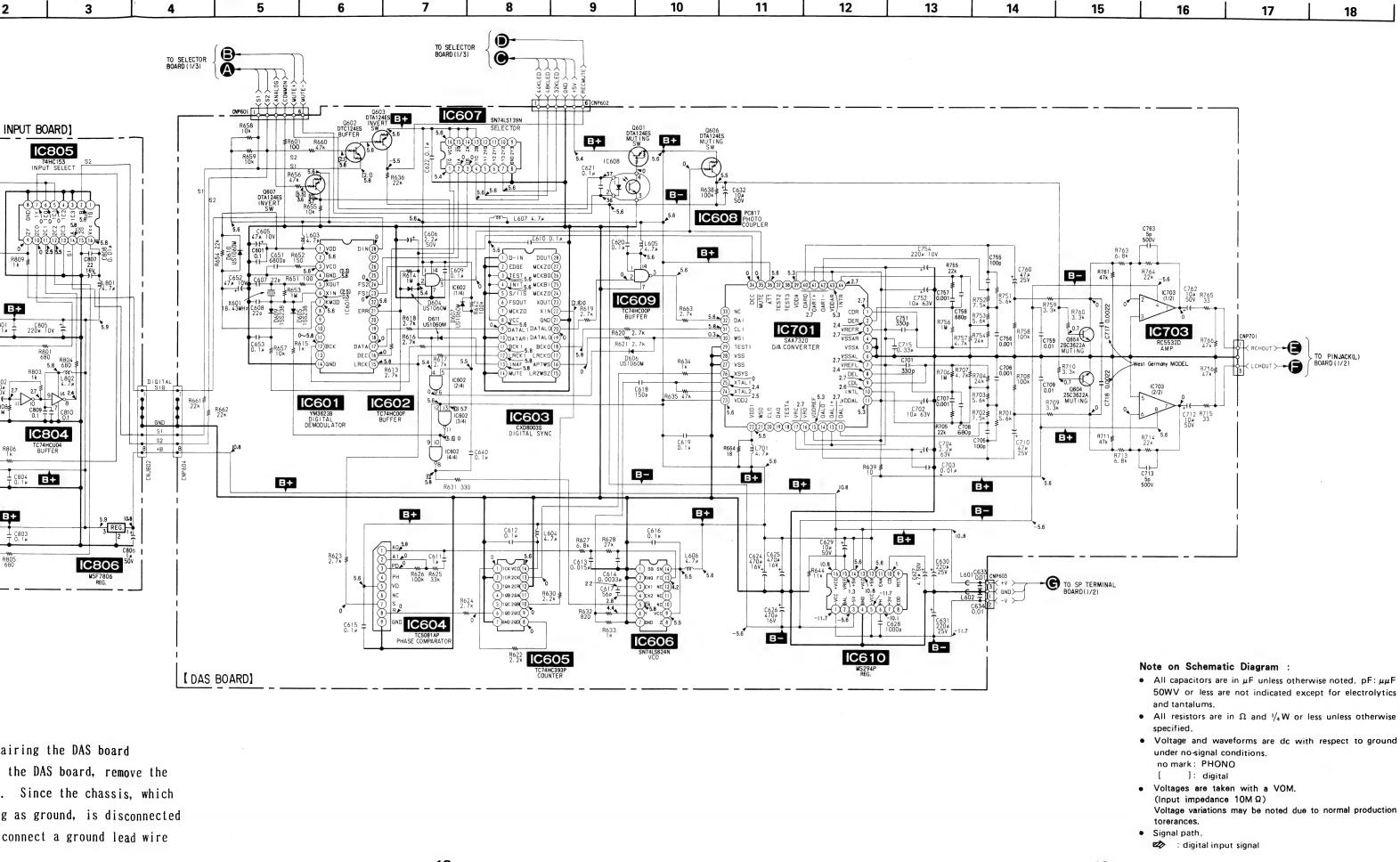
• parts extracted from the conductor side.

• parts mounted on the conductor side.



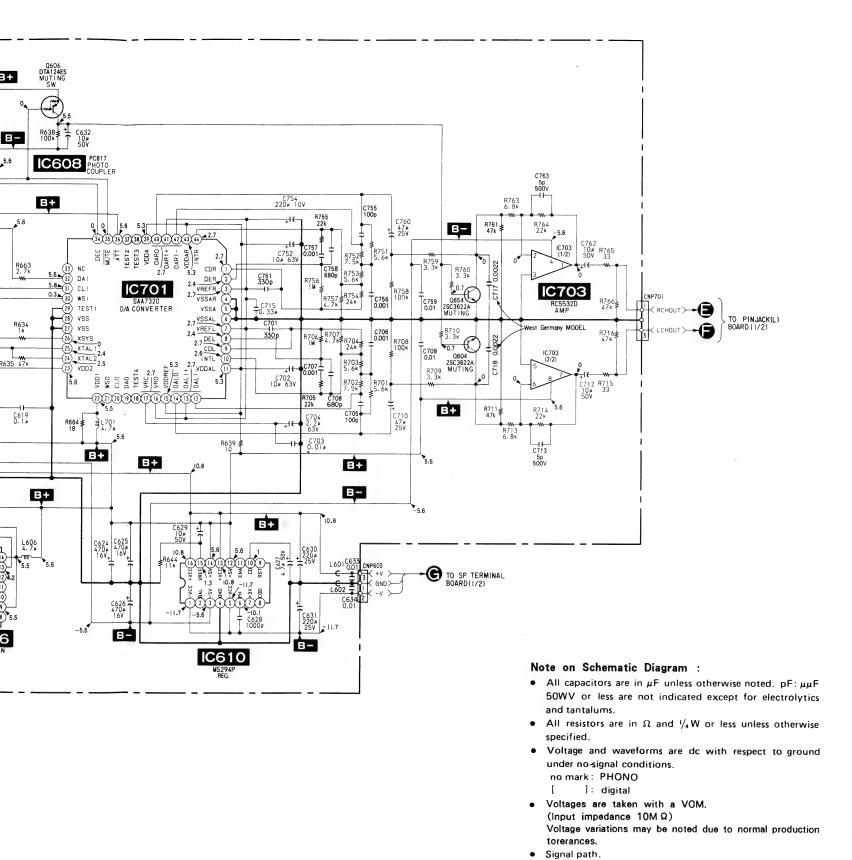


during repair.



GRAM - D/A CONVERTER SECTION -

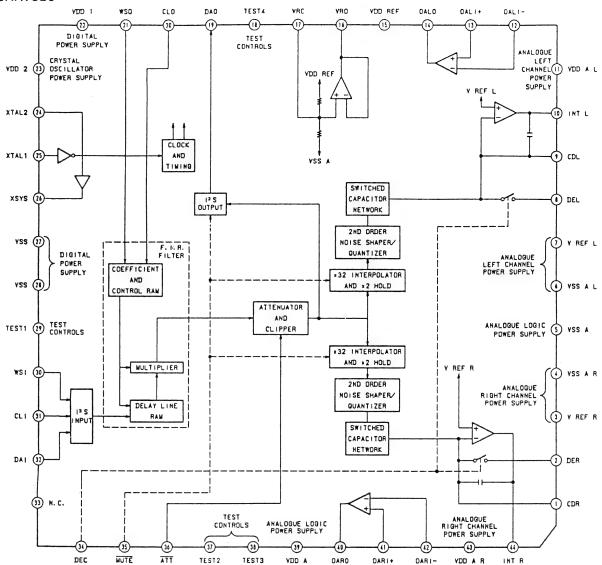
10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18



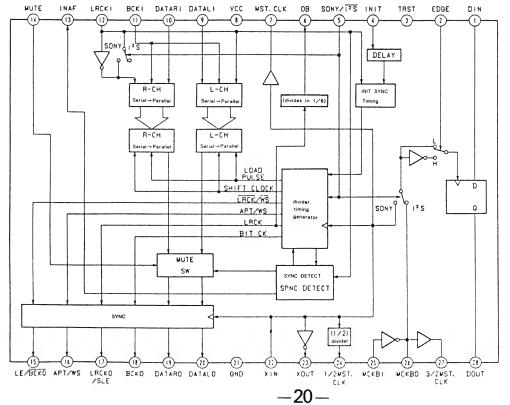
: digital input signal

-19-

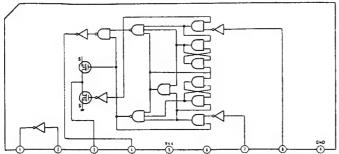
SAA7320

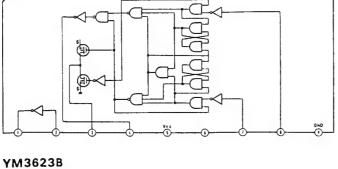


CXD-8003S

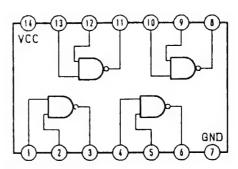


TC5081AP

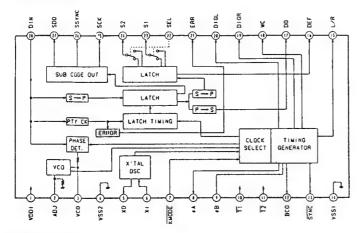


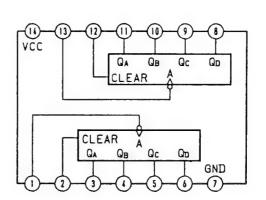


TC74HC00P

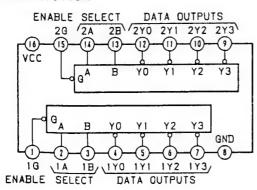


TC74HC393P



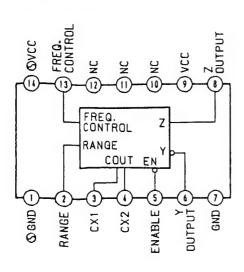


SN74HC139N

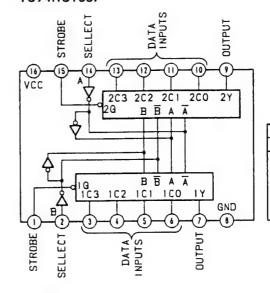


	IN	PUTS	OUTPUTS
	G	AB	YOYIY2Y3
	Н	XX	нннн
	L	LL	L Н Н Н
	L	LH	ньнн
	L	HL	ннгн
i	L	нн	HHHL

SN74LS624N



TC74HC153P



1 N	PUTS	OUTPUT			
G	AB	Υ			
Н	XX	L			
Ł	LL	CO			
L	LH	C1			
L	H L	C2			
L	нн	C3			

SECTION 4 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example: (RED) ... KNOB, BALANCE (WHITE)

Parts' Color

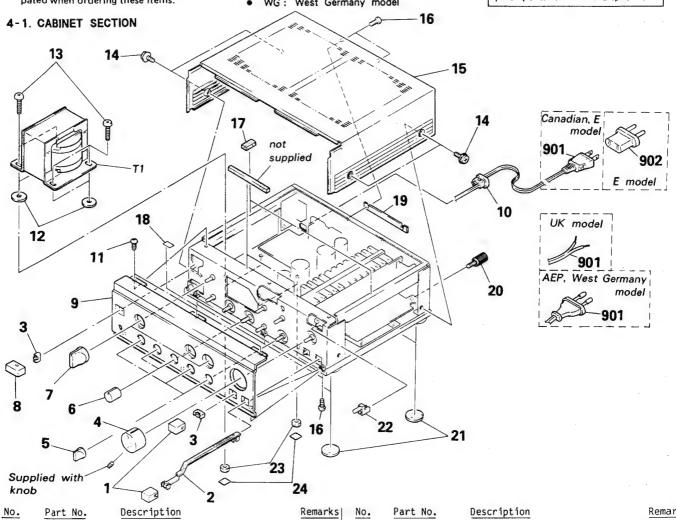
WG: West Germany model

Cabinet's Color

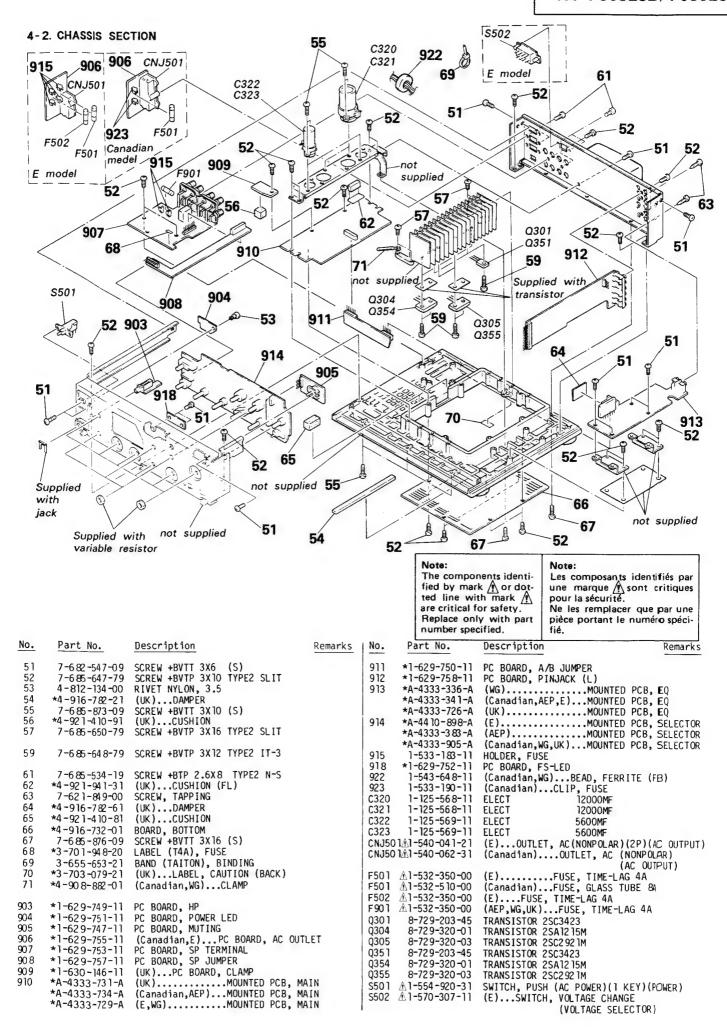
The components identified by mark A or dotted line with mark
A are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque A sont critiques pour la sécurité.

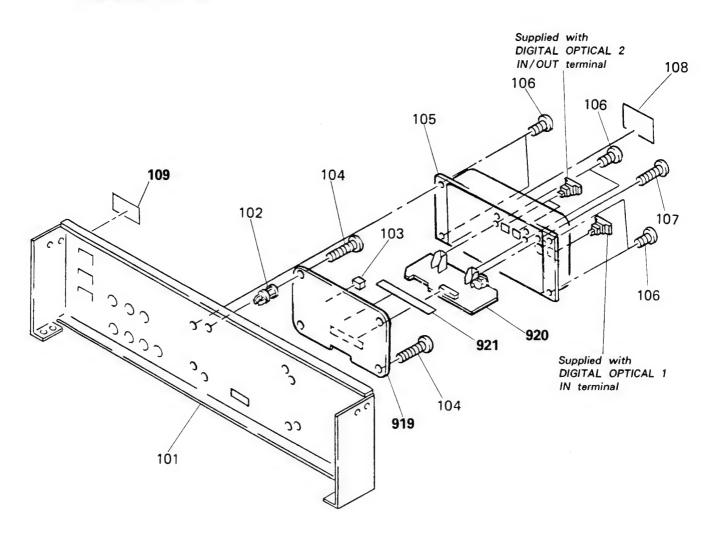
Ne les remplacer que par une pièce portant le numéro spécifé.



		2					
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1 2	4-908-875-01	KNOB, SQUARE		16 17	7-685-873-09 *2-527-517-00	SCREW +BVTT 3X10 (S)	
3	4-929-227-01	JOINT		18	*3-846-067-21	(UK)CUSHION, CASE RETAINER (UK)SPACER (C)	
4	4-864-307-00 4-929-224-01	RING KNOB (NA-48)		19	*4-929-232-01	SPACER (C)	
4	4-929-224-01	KNOD (NA-40)	ĺ	20	3-706-165-00	SCREW	
5	4-916-745-01	KNOB (DIA.21)		20	3 700 103 00	JUNE	
6	4-916-746-11			21	*4-923-850-01	FOOT (DIA. 46)	
ž	4-916-729-01	KNOB (DIA.29)		22	4-923-879-01	BUTTON (DIA.4)	
8	4-908-856-01	KNOB, SQUARE		23	7-684-024-04	N 4. TYPE 2	
	4 300 000 01	KNOD, SQUINE		24	*4-929-266-01	CUSHION	
9	A-4317-986-A	(Canadian) PANEL ASSY, FRONT					
	A-4317-987-A			901	1-574-381-11 1 1 1 1 1 1 1 1 1	(E)CORD, POWER	
	A-4323-064-A	(E)PANEL ASSY, FRONT			<u>↑</u> 1-551-478-00	(Canadian)CORD, POWER	
_					№ 1-574-805-11	(AEP, WG)CORD, POWER	
10	*3-703-244-00	(Canadian, AEP, WG, UK)			№ 1-574-804-11	(UK)CORD, POWER	
		BUSHING (2104),				(=)	
	3-703-571-11	(E)BUSHING (S) (4516),	, CORD	902	1-526-565-00 1-526-565	(E)AC PLUG ADAPTOR	
11	7-682-547-09	SCREW +BVTT 3X6 (S)		T 1	A1-449-691-11	(Canadian)TRANSFORMER, POWER	
12	4-885-984-21	(UK)WASHER		τi	∆1-449-693-11	(AEP)TRANSFORMER, POWER	
13	7-682-566-09			τi	£1-449-694-11	(WG)TRANSFORMER, POWER	
14	4-847-802-00			ŤΪ	A1-449-695-11	(E)TRANSFORMER, POWER	
15	4-916-737-01	CASE		τi	▲1-449-769-11	(UK)TRANSFORMER, POWER	
			0			· · · · · · · · · · · · · · · · · · ·	



4-3. D/A CONVERTER SECTION



No.	Part No.	Description	Remarks	No.	Part No.	<u>Description</u> Remarks
101	*4-929-239-03 *4-929-239-21 *4-929-281-01	(Canadian)PANEL, BACK (AEP,WG,UK)PANEL, BACK (E)PANEL, BACK		108	*4-929-275-01 *4-929-277-01 *4-929-278-01 *4-929-279-01	(Canadian)LABEL, MODEL NUMBER (WG)LABEL, MODEL NUMBER (UK)LABEL, MODEL NUMBER (E)LABEL, MODEL NUMBER
102 103 104 105 106 107		SUPPORT, PC (UK)CUSHION SCREW +BVTP 3X16 TYPE2 N-S CASE, SHIELD SCREW +BVTT 3X6 (S) SCREW, TAPPING		919	*4-929-907-01 *A-4333-387-A *A-4333-755-A *A-4410-909-A	(AEP)LABEL, MODEL NUMBER (WG)MOUNTED PCB, DAS (Canadian,E,AEP)MOUNTED PCB, DAS
107	7-02 1-049-00	SUREW, PARTING		920 921	*1-629-760-11 *1-560-242-21	PC BOARD, DAS INPUT BUS BAR 4P

SECTION 4 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF: μF, PF: μμF.

RESISTORS

- All resistors are in ohms. F: nonflammable

COILS

MMH: mH, UH: μH

SEMICONDUCTORS

In each case, U: μ, for example: UA...: μΑ..., UPA...: μΡΑ..., UPC...: μPD...

• WG: West Germany model

The components identified by mark \(\hat{\Lambda} \) or dotted line with mark \(\hat{\Lambda} \) are critical for safety.

Replace only with part number specified.

Les composants identifiés par une marque 🛆 sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description			
901	<u>1-551-478-00</u>	(Canadian)CORD, POWER	C 152	1-162-284-31	(Canadian, WG)			
	<u>1-574-381-11</u> <u>1-574-804-11</u>	(E)CORD, POWER (UK)CORD, POWER	C 153	1-162-284-31	CER/	• • •		50V
	<u></u> 1-574-805-11	(AEP,WG)CORD, POWER	C 154	1-162-284-31	CER/ (Canadian,WG)			
902 903	1-526-565-00 1-629-749-11	(E)AC PLUG ADAPTOR PC BOARD, HP			CER		10%	50 V
904	*1-629-751-11	PC BOARD, POWER LED	C 158	1-162-284-31	(Canadian,WG)	AMIC 150PF	10%	50 V
905 906	*1-629-747-11 *1-629-755-11	PC BOARD, MUTING (Canadian,E)PC BOARD, AC OUTLET	C 159	1-162-284-31	(Canadian,WG)	AMIC 150PF	10%	50 V
-907	*1-629-753-11	PC BOARD, SP TERMINAL	C201	1-130-471-00	MYLAR (0.001MF	5%	50 V
90 8 90 9	*1-629-757-11 *1-630-146-11	PC BOARD, SP JUMPER (UK)PC BOARD, CLAMP	C202 C203	1-130-478-00 1-130-479-00		0.0039MF 0.0047MF	5% 5%	50 V 50 V
910	*A-4333-729-A	(E, WG)MOUNTED PCB, MAIN	C204 C205	1-136-159-00		0.033MF 4.7MF	5% 20%	50 V 50 V
	*A-4333-731-A *A-4333-734-A	(UK)MOUNTED PCB, MAIN (Canadian, AEP)MOUNTED PCB, MAIN	C206	1-123-369-00 1-123-380-00		IMF	20%	63V
911. 912	*1-629-750-11 *1-629-758-11	PC BOARD, A/B JUMPER PC BOARD, PINJACK (L)	C207 C209	1-124-918-11 1-124-472-11		47MF 470MF	20% 20%	63V 6.3V
912			C251	1-130-471-00		0.00 1MF	5%	50V
913	*A-4333-336-A *A-4333-341-A	(WG)MOUNTED PCB, EQ (Canadian, AEP, E)MOUNTED PCB, EQ	C252 C253	1-130-478-00 1-130-479-00		0.0039MF 0.0047MF	5% 5%	50 V 50 V
914	*A-4333-726-A *A-4410-898-A	(UK)MOUNTED PCB, EQ	C254	1-136-159-00 1-123-369-00	FILM (0.0047MF 0.033MF 4.7MF	5% 20%	50 V 50 V
914	*A-4333-383-A	(E)MOUNTED PCB, SELECTOR (AEP)MOUNTED PCB, SELECTOR (Canadian, WG, UK)MOUNTED PCB, SELECTOR	₹	1-101-888-00	(WG)ELECT		20%	30 ¥
915	*A-4333-905-A		C303	1-104-276-11	(Canadian, AEP CERAMI	68PF	5% 10%	50 V 50 V
918	1-533-183-11 *1-629-752-11	HOLDER, FUSE PC BOARD, FS-LED			(UK)STYROL		10%	50 V
919	*A-4333-387-A	(WG)MOUNTED PCB, DAS	C304	1-123-360-00	(Canadian, AEP	100MF	20% 20%	50 V
	*A-4333-755-A *A-4410-909-A	(Canadian,E,AEP)MOUNTED PCB, DAS (UK)MOUNTED PCB, DAS	C304	1-126-052-11	(UK)ELECT	100MF	20%	50 V
920	*1-629-760-11	PC BOARD, DAS INPUT	C305	1-102-936-00	(Canadian, AEP	C 3PF	0.5PF	50V
92 1 92 2	*1-560-242-21 1-543-648-11	BUS BAR 4P (Canadian, WG)BEAD, FERRITE (FB)	C305	1-107-276-11	(UK)MICA	3PF	0.5PF	500 V
923	1-533-190-11	(Canadian)CLIP, FÜSE	C306 C307	1-123-369-00 1-123-369-00		4.7MF 4.7MF	20% 20%	63 V 63 V
C101	1-162-284-31	(Canadian, WG)CERAMIC 150PF 10% 50V	C308	1-102-951-00	(Canadian, AEP	,E,WG)		
¢ 102	1-162-284-31	(Canadian, WG)CERAMIC 150PF 10% 50V	C308	1-104-263-11	CERAMIC	C 15PF 15PF	5% 10%	50 V 50 V
C 103	1-162-284-31	(Canadian, WG)	C309	1-123-359-00	(Canadian, AEP		20#	5011
C 104	1-162-284-31	CERAMIC 150PF 10% 50V (Canadian, WG)	C309	1-124-910-11	ELECT	47MF 47MF	20% 20%	50 V 50 V
c 108	1-162-284-31		C3 10	1-102-963-00	(Canadian, AEP		5 %	50V
C 109		(Canadian, WG)CERAMIC 150PF 10% 50V	C3 10	1-107-159-00	CERAMICA	33PF	5%	500 V
C 109	1-162-284-31	(Canadian, WG)CERAMIC 150PF 10% 50V	C311	1-102-963-00	(Canadian,AEP		5 %	50 V
C 10 I	1-102-204-31	(Canadian, WG) CERAMIC 150PF 10% 50V	C311	1-107-159-00	(UK)MICA	33PF 33PF	5%	500V

Ref.No.	Part No.	Description			1	Ref.No.	Part No.	Description			
C3 12	1-130-487-00	MYLAR	0.022MF	5%	500	C403	1-126-103-11	ELECT	470MF	20%	10 V
C313 C314	1-130-471-00 1-123-333-00	MYLAR ELECT	0.001MF 100MF	5% 20%	50V 25V	C404	1-130-341-00	(UK)FILM	0.056MF	3%	1007
C3 15	1-130-487-00	MYLAR	0.022MF	5%	50V	C404	1-136-162-00	(Canadian,AE)	0.056MF	5%	50 V
C317 C318	1-123-333-00 1-123-604-00	ELECT ELECT	100MF 220MF	20% 20%	25V 63V	C405	1-130-971-00	(UK)FILM	0.016MF	3%	1007
C319	1-123-379-00	ELECT	0.47MF	20%	1000	C405	1-136-032-51	(Canadian,AEI	P,E,WG) 0.016MF	5%	50 V
C320 C321	1-125-568-11 1-125-568-11	ELECT ELECT	12000MF 12000MF			C406 C407	1-123-333-00 1-130-479-00	ELECT MYLAR	100MF 0.0047MF	20 % 5 %	16 V 50 V
C322 C323	1-125-569-11 1-125-569-11	ELECT ELECT	5600MF 5600MF			C408	1-123-356-00	(Canadian, AE		0.2	•••
C324	1-136-601-11	(Canadian, AE				C408	1-126-059-11	ELECT	10MF 10PF	20% 20%	50 V 50 V
C324	1-136-880-11	FILM	0.01MF 2.2MF	10 % 10 %	630V 160V	C409	1-123-359-00	(Canadian, AE		20.0	
C326	1-136-165-00	FILM	O. 1MF	5%	50V	C409	1-124-910-11	ELECT		20% 20%	50V 50V
C327 C328	1-136-165-00 1-124-523-11	FILM ELECT	0.1MF 4700MF	5% 20%	50 V 16 V	C4 10	1-123-359-00	(Canadian, AE		20%	551
C329	1-126-103-11	ELECT	470MF	20%	167	C4 10	1-124-910-11	ELECT		20 % 20 %	50 V 50 V
C330	1-162-282-31	(WG)CERAM		5%	50 V	C411	1-123-380-00	ELECT	1MF	20%	50 V
C331	1-102-973-00	(Canadian, AE		5%	50 V	C4 12 C4 13	1-123-380-00	ELECT ELECT	1MF 470MF	20%	50V 16V
C331	1-136-808-11	(UK)FILM	100PF	5%	100 V	C4 14	1-126-103-11	ELECT	470MF	20%	167
C333 C352	1-161-379-00 1-123-369-00	(WG)CERAM (WG)ELECT		30 % 20 %	25 V 50 V	C430 C431	1-102-816-00 1-102-816-00	(WG)CERAM (WG)CERAM		5% 5%	50 V 50 V
C353	1-101-888-00	(Canadian,AE		5%	50 V	C451	1-101-361-00	(Canadian, AE		E #	FOV
C353	1-104-276-11	(UK)STYRO		10%	50 V	C451 C451	1-102-973-00 1-104-282-91	CERAM (WG)CERAM (UK)STYRO	IC 100PF	5% 5% 5%	50V 50V 50V
C354	1-123-360-00	(Canadian,AE		20%	50V	C452	1-123-369-00	(Canadian, AE			
C354	1-126-052-11	(UK)ELECT		20%	50 V	C453	1-124-472-11	ELECT	4.7MF 470MF	20% 20%	50V 10V
C355	1-102-936-00	(Canadian,AE		0.5PF	50V	C454	1-136-162-00	(Canadian, AE			
C355	1-107-276-11	(UK)MICA	3PF	0.5PF	500 V	C454	1-130-341-00	FILM (UK)FILM	0.056MF 0.056MF		50V 100V
C358	1-102-951-00	(Canadian,AE		5%	50 V	C455	1-136-032-51	(Canadian, AEI			
C358	1-104-263-11	(UK)STYRO		10%	50 V	C455	1-130-971-00	FILM (UK)FILM	0.016MF 0.016MF		50V 100V
C359	1-123-359-00	(Canadian,AE		20%	50 V	C457	1-130-479-00	MYLAR	0.0047MF	5%	50V
C359	1-124-910-11	(UK)ELECT		20%	50 V	C458	1-123-356-00	(Canadian, AEI			
C360	1-102-963-00	(Canadian,AE		5%	50 V	C458	1-126-054-11	ELECT	10MF 10MF	20% 20%	50 V 50 V
C360	1-107-159-00	(UK)MICA	33PF	5%	500 V	C4 80	1-102-816-00	(WG)CERAM		5%	50 V
C361	1-102-963-00	(Canadian,AE		5%	50 V	C4 81	1-162-282-31	(WG)CERAM		5%	50V
C361	1-107-159-00	(UK)MICA	33PF	5%	500 V	C501	<u>↑</u> 1-161-744-00	(Canadian,E)	IC 0.01MF		400V
C362 C380	1-130-487-00 1-162-282-31	MYLAR (WG)CERAN	0.022MF MIC 100PF	5 % 5 %	50 V 50 V	C601	1-136-165-00	FILM	0.1MF	5%	50 V
C381	1-102-973-00	(Canadian, Al		5%	50 V	C606 C607	1-123-381-00	ELECT CERAMIC	2.2MF 22PF	20% 5%	50V 50V
C381	1-136-808-11	CERA/ (UK)FILM		5%	1001	C608	1-162-207-31	CERAMIC	22PF	5%	507
C401	1-101-361-00			E */	501	C609 C610	1-136-165 - 00 1-136-165 - 00	FILM FILM	0.1MF 0.1MF	5% 5%	50 V 50 V
C401 C401	1-102-973-00 1-104-282-91	CERAI (WG)CERAI (UK)STYR	MIC 100PF	5% 5% 5%	50 V 50 V 50 V	C611	1-136-746-11	(Canadian, AEI	1MF	5%	50V
C402	1-123-369-00	(Canadian,A		20%	50 V	C611	1-136-921-11	(UK)FILM	ìMF	5%	50V

Note:
The components identified by mark A or dotted line with mark are critical for safety.
Replace only with part number specified.

Note:

Les composants identifiés par une marque A sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
C6 12		FILM	0.1MF	5%	50 V	C755	1-102-973-00	(Canadian, AEP		- 4	504
C6 13 C6 14	1-136-155-00 1-130-477-00	FILM MYLAR	0.015MF 0.0033MF	5% 5%	50V 50V	C755	1-136-808-11	CERAMI	100PF 100PF	5% 5%	50V 100V
C6 15	1-136-165-00	FILM	0.1MF	5%	50V	C756	1-102-074-00	(Canadian, AEP		70.4	COM
C616 C617	1-136-165-00 1-162-217-31	FILM CERAMIC	0.1MF 56PF	5% 5%	50 V 50 V	C756	1-136-814-11	CERAMI	0.001MF 0.001MF		50V 100V
C618	1-162-284-31	CERAMIC	150PF	10%	50 V	C757	1-102-074-00	(Canadian, AEP		30.4	50 V
C619 C620	1-136-165-00 1-136-165-00	FILM FILM	0.1MF 0.1MF	5% 5%	50 V 50 V	C757	1-136-814-11	CERAMI	0.00 1MF 0.00 1MF		1000
C621	1-136-165-00		0.1MF	5%	50V	C758	1-102-116-00	(Canadian, AEP		30.4	5011
C622 C624	1-136-165 <i>-</i> 00 1-126-103-11	FILM ELECT	0.1MF 470MF	5% 20%	50 V 16 V	C758	1-136-813-11	CERAMI	6 80 PF 6 80 PF	10% 5%	50V 100V
C625	1-126-103-11		470MF	20%	167	C759	1-136-153-00		0.01MF	5%	50V
C626 C627	1-126-103-11 1-126-163-11	ELECT ELECT	470MF 4.7MF	20% 20%	16V 50V	C760 C762	1-123-332-00 1-126-059-11	ELECT ELECT	47MF 10MF	20 % 20 %	25 V 50 V
C628	1-162-294-31	CERAMIC	0.001MF	10%	50 V	C763	1-107-026-00	MICA	5PF	0.5PF	500 V
C629 C630	1-126-059-11 1-123-334 <i>-</i> 00	ELECT ELECT	10MF 220MF	20 % 20 %	50 V 25 V	C 80 1	1-136-165-00	FILM	O.1MF	5%	50 V
C631	1-123-334-00	ELECT	220MF	20%	25 V	C 802	1-123-356-00	(Canadian, AEP	,WG,E) 10MF	20%	50V
C632 C633	1-126-059-11 1-161-379-00	ELECT CERAMIC	10MF 0.01MF	20% 30%	50 V 16 V	C 802	1-126-059-11	(UK)ELECT	10 M F	20%	50 V
C634	1-161-379-00	CERAMIC	0.01MF	30%	167	C 803 C 804	1-136-165 - 00 1-136-165 - 00		0.1MF 0.1MF	5% 5%	50 V 50 V
C640 C651		FILM MYLAR	0.1MF 0.0068MF	5% 5%	50 V 50 V	C 805	1-126-335-11	ELECT	220MF	20%	101
						C 806	1-123-380-00	ELECT	1MF	20%	50 V
C652 C653	1-123-306-00 1-136-165-00	ELECT FILM	47MF 0.1MF	20% 5%	70 V 50 V	C 807 C 808	1-124-234-00 1-136-153-00		22MF 0.01MF	20% 5%	16 V 50 V
C701	1-102-820-00	(Canadian, AE	P,WG,E)			C 80 9	1-164-159-11	CERAMIC	0.1MF		50 V
C701	1-136-811-11	CERAM	IC 330PF 330PF	5 % 5 %	50V 100V	C 810 C 90 1	1-164-159-11 1-161-744-00	CERAMIC (AEP, WG, UK)	O. 1MF .CERAMIC O.O) 1MF	50 V 400 V
C702	1-124-915-11	ELECT	10MF	20%	63V	C 902	1-136-153-00	(WG)FILM	0.01MF	5%	50 V
C703 C704	1-136-153-00 1-123-381-00	FILM ELECT	0.01MF 2.2MF	5% 20%	50 V 63 V	C903	1-136-153-00	(WG)FILM	0.0 MF	5%	50 V
C705	1-102-973-00	(Canadian, AE		20%		C 904	1-102-978-00	(Canadian,WG) CERAM		5%	50 V
C705		CERAM	IC 100PF	5%	507	C906	1-162-286-31	(Canadian, WG)			
	1-136-808-11	(UK)FILM	100PF	5%	1007	C910	1-102-978-00	CERAM (Canadian,WG)		10%	50 V
C706	1-102-074-00	(Canadian, AE	IC 0.001MF		50 V	C911	1-102-978-00	CERAM (Canadian,WG)		5%	50V
C706	1-136-814-11	(UK)FILM	0.001MF	5%	100 V			CERAM		5%	50 V
C707	1-102-074-00	CERAM	IC 0.001MF		50V	C912	1-102-978-00	(Canadian, WG)	IIC 220PF	5%	50 V
C707	1-136-814-11	(UK)FILM	0.001MF	5%	1007	C913	1-102-978-00	(Canadian, WG)		5%	50V
C708	1-102-116-00	(Canadian, AE		10%	507	C 954	1-102-978-00	(Canadian, WG)			001
C708	1-136-813-11	(UK)FILM	6 80 P F	5%	1007	C 952	1-136-153-00	CERAM	IC 220PF	5% 5%	50 V 50 V
C709 C710	1-136-153 - 00 1-123-332-00	FILM ELECT	0.01MF 47MF	5% 20%	50V 25V	C 953	1-136-153-00	(WG)FILM		5%	50 V
C7 12	1-126-059-11		10MF	20%	50V		*1-561-651-00	SOCKET, CONNE			
C713 C715	1-107-026-00	MICA	5PF	0.5PF 5%	500 V 50 V	CN2	*1-561-651-00 1-568-118-11	SOCKET, CONNE			
C717	1-136-171-00	(WG)CERAM		10 %	50V		*1-562-334-00	SOCKET, CONNE			
C718	1-102-121-00	(WG)CERAM		10%	50V	CN5 CN6	*1-561-651-00 1-568-203-11	SOCKET, CONNE PIN, CONNECTO		11P	
C751	1-102-820-00		IC 330PF	5%	50 V	CN7	1-568-203-11	PIN, CONNECTO	R (PC BOARD)	11P	
C751	1-136-811-11	(UK)FILM	330PF	5%	100 V	CN8	*1-563-381-11 *1-566-451-11	SOCKET, CONNE HOUSING, CONN	CTOR 11P		
C752 C754	1-124-915-11 1-126-335-11		10MF 220MF	20 % 20 %	63V 10V		*1-563-381-11	SOCKET, CONNE			
						CN11	1-568-117-11	SOCKET, CONNE	CTOR 14P		

5 · 5 · N ·		Description
Ref.No.	Part No.	<u>Description</u>
CNJ50	11/1-540-041-21	(E)OUTLET, AC (NONPOLAR) (2P) (AC OUTPUT)
CNJ50	11/1-540-062-31	(Canadian)OUTLET, AC (NONPOLAR) (2P) (AC OUTPUT)
	1 1-568-249-11 2*1-565-484-11	JACK, PIN 1P (DIGITAL IN COAXIAL) CONNECTOR, BOARD TO BOARD &P
CNP60	1*1-564-340-00 2*1-564-340-61 3*1-564-337-71	PIN, CONNECTOR 6P PIN, CONNECTOR 6P PIN, CONNECTOR 3P
	4*1-508-694-00 1*1-564-337-00	CONNECTOR PIN 8P PIN, CONNECTOR 3P
CP1	*1-560-532-00	PIN, CONNECTOR 7P
CP2	*1-560-532-00	PIN, CONNECTOR 7P
CP3	*1-560-532-00	PIN, CONNECTOR 7P
CP4	*1-568-202-11	PIN, CONNECTOR (PC BOARD) 10P
CP5	1-568-120-11	PIN, CONNECTOR (PC BOARD) 7P
CP6	1-568-120-11	PIN, CONNECTOR (PC BOARD) 7P
CP7	*1-568-204-11	PIN, CONNECTOR (PC BOARD) 16P
D201	8-719-000-26	DIODE US1060M
D202	8-719-000-26	DIODE US1060M
D203	8-719-303-00	DIODE SEL2510C
D204	8-719-303-00	DIODE SEL2510C
D205	8-719-303-00	DIODE SEL2510C
D206	8-719-300-82	DIODE SEL2213C
D207	8-719-300-82	DIODE SEL2213C
D208	8-719-301-52	DIODE SEL2810A
D209	8-719-301-52	DIODE SEL2810A
D2 10	8-719-301-52	DIODE SEL2810A
D2 11	8-719-301-52	DIODE SEL2810A
D2 12	8-719-303-00	DIODE SEL2510C
D2 13	8-719-303-00	DIODE SEL2510C
D2 14	8-719-303-00	DIODE SEL2510C
D2 15	8-719-000-26	DIODE US1060M
D2 16	8-719-000-26	DIODE US1060M
D30 1	8-719-230-02	DIODE 30DF2
D302	8-719-230-02	DIODE 30DF2
D303	8-719-230-02	DIODE 30DF2
D304	8-719-230-02	DIODE 30DF2
D305	8-719-200-77	DIODE 10E2N
D306	8-719-200-77	DIODE 10E2N
D307	8-719-200-77	DIODE 10E2N
D308	8-719-200-77	DIODE 10E2N
D309	8-719-200-77	DIODE 10E2N
D3 10	8-719-200-77	DIODE 10E2N
D3 11	8-719-200-77	DIODE 10E2N
D3 12	8-719-000-26	DIODE US1060M
D3 13	8-719-000-26	DIODE US1060M
D3 14	8-719-000-26	DIODE US1060M
D3 15	8-719-200-77	DIODE 10E2N
D3 16	8-719-200-77	DIODE 10E2N
D3 17	8-719-200-77	DIODE 10E2N
D318	8-719-200-77	DIODE 10E2N
D319	8-719-000-26	DIODE US1060M
D362	8-719-000-26	DIODE US1060M
D363	8-719-000-26	DIODE US1060M
D364	8-719-000-26	DIODE US1060M
D401	8-719-933-47	DIODE HZS7B2L
D402 D403 D604		DIODE UZL-16L DIODE UZL-16L DIODE US1060M

Ref.No.	Part No.	Description
D605 D606 D607	8-719-903-27 8-719-000-26 8-719-000-26	DIODE 1SS168 DIODE US1060M DIODE US1060M
D609 D610 D611	8-719-903-27 8-719-000-26 8-719-000-26	DIODE 1SS168 DIODE US1060M DIODE US1060M
EH2 EH3	*1-564-508-11 *1-564-508-11	PLUG, CONNECTOR 5P PLUG, CONNECTOR 5P
	<u>↑</u> 1-532-350-00 <u>↑</u> 1-532-510-00	(E)FUSE, TIME-LAG 4A (Canadian)FUSE, GLASS TUBE 8A
	<u></u> <u>↑</u> 1-532-350-00 <u>↑</u> 1-532-350-00	(E)FUSE, TIME-LAG 4A (AEP,WG,UK)FUSE, TIME-LAG 4A
IC30 1 IC302 IC40 1	8-749-920-70 8-759-111-68 8-759-981-96	IC STK3 102-3 IC UPC 1237HA IC RC4560D
IC601 IC602 IC603	8-759-202-11	IC YM3623B IC TC74HC00P IC CXD8003S
IC604 IC605 IC606		IC TC5081AP IC TC74HC393P IC SN74LS624N
IC607 IC608 IC609	8-719-902-56	IC TC74HC139P DIODE PC817 IC TC74HC00P
IC6 10 IC70 1 IC703	8-759-980-13	IC M5294P IC SAA7320 IC RC5532DD
IC801 IC802 IC803	8-759-977-72 8-759-977-71	IC GP1F31R (DIGTAL OPTICAL 1 IN) IC GP1F31R (DIGTAL OPTICAL 2 IN) IC GP1F31T (DIGTAL OPTICAL 2 REC OUT)
1C 804 1C 805	8-759-202-13	IC TC74HCU04P IC TC74HC153P (UK)IC M5F7806
J101 J102 J104 J501	1-565-320-41 1-565-320-51 1-568-250-11 1-507-863-51	JACK, PIN 6P (TUNER/CD/TAPE? REC OUT) JACK, PIN 6P(TAPE? IN/TAPE? REC OUT,IN) JACK, PIN 2P (PHONO) JACK, LARGE TYPE (HEADPHONES)
JR601 JR602		LEAD, JUMPER (OFC) LEAD, JUMPER (OFC)
L301 L351 L401	*1-420-872-00 *1-420-872-00 1-413-101-00	COIL, AIR CORE COIL, AIR CORE (WG)COIL, INPUT
L402 L451 L452	1-413-101-00 1-413-101-00 1-413-101-00	(WG)COIL, INPUT (WG)COIL, INPUT (WG)COIL, INPUT
L601 L602 L603	1-410-396-41 1-410-396-41 1-410-324-11	FERRITE BEAD INDUCTOR FERRITE BEAD INDUCTOR INDUCTOR 4.7UH
L604 L605 L606 L607	1-4 10-324-11 1-4 10-324-11 1-4 10-324-11 1-4 10-324-11	INDUCTOR 4.7UH INDUCTOR 4.7UH INDUCTOR 4.7UH INDUCTOR 4.7UH
L701 L801 L802	1-410-324-11 1-410-324-11 1-410-324-11	INDUCTOR 4.7UH INDUCTOR 4.7UH INDUCTOR 4.7UH

Note:
The components identified by mark A or dotted line with mark are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque A sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

1/4W 1/4W 1/4W

1/2W 1/2W 1/2W

1/4W 1/4W 1/2W

1/4W 1/4W 1/4W

1/4W 1/2W 1/2W

5% 1/4W 5% 1/2W 5% 1/4W 5% 1/2W

1/4W 1/4W 1/4W

1/4W 1/2W 1/4W

1/4W 1/2W F 1/2W F

1/2W F 2W 2W

1/4W F 1/4W 1/2W F

1/2W F 1/4W 1/4W 1/4W

Ref.No.	Part No.	Description		Ref.No.	Part No.	Description		
Q201	8-729-117-42	TRANSISTOR 2SD774-3		R2 12	1-249-465-11	CARBON	47K	5%
Q202	8-729-194-57	TRANSISTOR 2SC945P		R2 13	1-247-722-11	CARBON	5.6K	5%
Q203	8-729-173-36	TRANSISTOR 2SA733Q		R2 14	1-247-693-11	CARBON	27	5%
Q204 Q205 Q255	8-729-173-36 8-729-107-98 8-729-107-98			R2 15 R2 16 R2 17	1-247-754-11 1-247-754-11 1-247-750-11	CARBON CARBON CARBON	1.5K 1.5K 680	5% 5% 5%
Q30 1	8-729-203-45	TRANSISTOR 2SC3423		R2 18	1-249-462-11	CARBON	22K	5%
Q302	8-729-127-53	TRANSISTOR 2SC2275P		R2 19	1-249-465-11	CARBON	47K	5%
Q303	8-729-190-53	TRANSISTOR 2SA985A		R220	1-247-749-11	CARBON	560	5%
Q304	8-729-320-03	TRANSISTOR 2SC2921M-O		R221	1-247-717-11	CARBON	2.2K	5%
Q305	8-729-320-01	TRANSISTOR 2SA1215M-O		R222	1-247-725-11	CARBON	10K	5%
Q306	8-729-108-14	TRANSISTOR 2SA988F		R223	1-249-465-11	CARBON	47K	5%
Q351	8-729-203-45	TRANSISTOR 2SC3423		R224	1-247-721-11	CARBON	4.7K	5%
Q352	8-729-127-53	TRANSISTOR 2SC2275P		R225	1-247-752-11	CARBON	1K	5%
Q353	8-729-190-53	TRANSISTOR 2SA985A		R226	1-247-752-11	CARBON	1K	5%
Q354 Q355 Q356	8-729-320-03 8-729-320-01 8-729-108-14	TRANSISTOR 2SC2921M-0 TRANSISTOR 2SA1215M-0 TRANSISTOR 2SA988F		R227 R227	1-247-239-00 1-247-752-11	(AEP)CAF (Canadian,WG, CAF	UK,E)	1K 1K
Q401 Q402 Q403	8-729-354-52 8-729-354-52 8-729-194-57	TRANSISTOR 2SC2545 TRANSISTOR 2SC2545 TRANSISTOR 2SC945P		R228 R228	1-247-239-00 1-247-752-11	(AEP)CAF (Canadian,WG, CAF	UK,E)	1K 1K
Q404	8-729-173-36	TRANSISTOR 2SA733Q		R229	1-247-721-11	CARBON	4.7K	5%
Q451	8-729-354-52	TRANSISTOR 2SC2545		R230	1-247-118-00	CARBON	300	5%
Q452	8-729-354-52	TRANSISTOR 2SC2545		R231	1-247-702-11	CARBON	150	5%
Q60 1	8-729-900-63	TRANSISTOR DTA124ES		R233	1-247-713-11	CARBON	1K	5%
Q602	8-729-900-36	TRANSISTOR DTC124ES		R252	1-247-700-11	CARBON	100	5%
Q603	8-729-900-63	TRANSISTOR DTA124ES		R253	1-247-717-11	CARBON	2.2K	5%
Q604 Q606 Q607 Q654	8-729-900-63 8-729-900-63			R254 R255 R256	1-247-722-11 1-249-753-15 1-249-753-15	CARBON CARBON CARBON	5.6K 4.7M 4.7M	
R000	1-247-725-11		1/4W	R258	1-247-170-00	CARBON	43K	5%
R 10 1	1-246-545-00		1/4W	R259	1-247-152-00	CARBON	7.5K	5%
R 102	1-246-545-00		1/4W	R260	1-249-464-11	CARBON	39K	5%
R 103	1-246-545-00	CARBON 1M 5%	1/4W	R261	1-249-465-11	CARBON	47K	5%
R 104	1-246-545-00		1/4W	R262	1-249-465-11	CARBON	47K	5%
R 105	1-247-713-11		1/4W	R263	1-247-722-11	CARBON	5.6K	5%
R106	1-249-417-11	CARBON 1K 5%	1/4W	R279	1-247-721-11	CARBON	4.7K	5%
R111	1-249-417-11	(Canadian, WG)CARBON	1K 5% 1/4W	R283	1-247-713-11	CARBON	1K	5%
R112	1-249-417-11	(Canadian, WG)CARBON	1K 5% 1/4W	R301	1-247-713-11	CARBON	1K	5%
R113	1-249-417-11	(Canadian, WG)CARBON	1K 5% 1/4W	R302	1-249-599-11	CARBON	91K	5%
R114	1-249-417-11	(Canadian, WG)CARBON	1K 5% 1/4W	R303	1-249-668-11	CARBON	620	5%
R151	1-246-545-00	CARBON IM 5%	1/4W	R304	1-247-713-11	CARBON	1K	5%
R 152	1-246-545-00	CARBON 1M 5%	1/4W		1-247-707-11	CARBON	390	5%
R 153	1-246-545-00	CARBON 1M 5%	1/4W		1-212-990-00	FUSIBLE	220	5%
R 154	1-246-545-00	CARBON 1M 5%	1/4W		1-212-950-00	FUSIBLE	4.7	5%
R155	1-247-713-11	CARBON 1K 5%	1/4W	R30 8	<u>1-212-950-00</u>	FUSIBLE	4.7	5%
R156	1-249-417-11	CARBON 1K 5%	1/4W	R30 9	1-217-611-00	METAL PLATE	0.1	10%
R161	1-249-417-11	(Canadian, WG)CARBON	1K 5% 1/4W	R3 10	1-217-611-00	METAL PLATE	0.1	10%
R 162	1-249-417-11	(Canadian,WG)CARBON	1K 5% 1/4W	R3 12	<u>1-247-717-11</u>	CARBON	2.2K	5%
R 163	1-249-417-11	(Canadian,WG)CARBON	1K 5% 1/4W		1-249-460-11	CARBON	15K	5%
R 164	1-249-417-11	(Canadian,WG)CARBON	1K 5% 1/4W		<u>1-212-962-00</u>	FUSIBLE	15	5%
R202 R203 R204	1-247-700-11 1-247-717-11 1-247-722-11	CARBON 100 5% CARBON 2.2K 5% CARBON 5.6K 5%	1/4W 1/4W 1/4W	R3 14 R3 15 R3 16 R3 17	1-212-962-00 1-247-891-00 1-247-725-11 1-247-887-00	FUSIBLE CARBON CARBON CARBON	15 330K 10K 220K	5% 5% 5%
R205 R206 R208	1-249-753-15 1-249-753-15 1-247-170-00	CARBON 4.7M 5% CARBON 4.7M 5% CARBON 43K 5%	1/4W 1/4W 1/4W	_				
R209 R2 10 R2 11	1-247-152-00 1-249-464-11 1-249-465-11	CARBON 7.5K 5% CARBON 39K 5% CARBON 47K 5%	1/4W 1/4W 1/4W		Note: The components fied by mark Attend line with mare critical for sale	ordot-une i ark 🖍 pour	omposa marque la sécur	ints ide A sont ité.

are critical for safety.
Replace only with part number specified.

lentif iés par nt critiques

Ne les remplacer que par une pièce portant le numéro spéci-fié.

Ref.No.	Part No.	Description			Ref.No.	Part No.	Description			
R318 R319 R320	1-247-881-00 1-249-461-11 1-247-721-11	CARBON 18K CARBON 4.7K	120K 5% 5% 1/4W 5% 1/4W	1/4W	R461 R462 R463	1-247-725-11 1-249-4 <i>8</i> 4-11 1-247-739-11	CARBON CARBON CARBON	6.8	5% 5%	1/4W 1/2W 1/2W
R32 1 R323 R324	1-249-462-11 1-212-849-00 1-247-727-11	CARBON 22K FUSIBLE 4.7 (WG,UK,E,AEP)	5% 1/4W 5% 1/4W	F	R465 R466 R467	1-247-700-11 1-214-937-00 1-249-844-11	CARBON CARBON CARBON	1M	5% 5% 5%	1/4W 1/2W 1/2W
R325 R326	1-247-747-11 1-249-721-11	CARBON 470 CARBON 100K	10 5% 5% 1/2W 5% 1/2W	1/2W	R468 R469 R481	1-249-818-11 1-247-713-11 1-247-713-11	CARBON CARBON (WG)CARBO	1K	1% 5% 5%	1/2W 1/4W 1/4W
R327 R351	1-247-708-11 1-247-713-11	(WG,UK,E,AEP)CARBON CARBON 1K	470 5% 5% 1/4W	1/4W	R4 82 R60 1 R6 13	1-247-713-11 1-249-405-11 1-249-422-11	(WG)CARBO CARBON CARBON	100	5% 5% 5%	1/4W 1/4W 1/4W
R352 R353 R354	1-249-599-11 1-249-668-11 1-247-713-11	CARBON 91K CARBON 620 CARBON 1K	5% 1/4W 5% 1/2W 5% 1/4W		R6 14 R6 15 R6 16	1-247-903-00 1-249-417-11 1-249-422-11	CARBON CARBON CARBON	1K	5% 5% 5%	1/4W 1/4W 1/4W
R355 R356 R357	1-247-707-11 <u>1-212-990-00</u> 1-212-950-00	CARBON 390 FUSIBLE 220 FUSIBLE 4.7	5% 1/4W 5% 1/2W 5% 1/2W	F F	R617 R618 R619	1-249-422-11 1-249-422-11 1-249-422-11	CARBON CARBON CARBON	2.7K	5 % 5 % 5 %	1/4W 1/4W 1/4W
R358 R359 R360	↑ 1-212-950-00 1-217-611-00 1-217-611-00	FUSIBLE 4.7 METAL PLATE 0.1 METAL PLATE 0.1	5% 1/2W 10% 2W 10% 2W	F	R620 R621 R622	1-249-422-11 1-249-422-11 1-249-421-11	CARBON CARBON CARBON	2.7K	5% 5% 5%	1/4W 1/4W 1/4W
R361 R362 R363	1-247-717-11 1-249-460-11 1-212-962-00	CARBON 2.2K CARBON 15K FUSIBLE 15	5% 1/4W 5% 1/4W 5% 1/2W		R623 R624 R625	1-249-422-11 1-249-422-11 1-259-464-11	CARBON CARBON CARBON	2.7K	5% 5% 5%	1/4W 1/4W 1/6W
R364 R365 R374	<u>1-212-962-00</u> 1-247-891-00 1-247-727-11	FUSIBLE 15 CARBON 330K (AEP,WG,UK,E)CAF	5% 1/2W 5% 1/4W RBON 10 5%	F 1/2W	R626 R627 R628	1-259-476-11 1-249-427-11 1-249-434-11	CARBON CARBON CARBON	6.8K	5% 5% 5%	1/6W 1/4W 1/4W
R375 R376 R377	1-247-747-11 1-249-721-11 1-247-708-11	CARBON 470 CARBON 100K CARBON 470	5% 1/2W 5% 1/2W 5% 1/4W		R630 R631 R632	1-249-421-11 1-249-411-11 1-259-426-11	CARBON CARBON CARBON	330	5% 5% 5%	1/4W 1/4W 1/6W
R401 R402 R403	<u>↑</u> 1-216-459-00 <u>↑</u> 1-215-895-11 1-247-721-11	METAL OXIDE 2.7K METAL OXIDE 3.3K CARBON 4.7K	5% 2W 5% 2W 5% 1/4W	F F	R633 R634 R635	1-259-428-11 1-249-417-11 1-259-468-11	CARBON CARBON CARBON	٦ĸ	5% 5% 5%	1/6W 1/4W 1/6W
R404 R405	1-247-721-11	CARBON 4.7K (Canadian, AEP, E, UK CARBON 330) 5% 1/4W		R636 R638 R639	1-249-433-11 1-249-441-11 1-249-393-11	CARBON CARBON CARBON	100K	5% 5% 5%	1/4W 1/4W 1/4W
R406 R407 R408 R409	1-249-469-11 1-247-700-11 1-249-469-11 1-247-713-11	CARBON 100K CARBON 100 CARBON 100K CARBON 1K	5% 1/4W 5% 1/4W 5% 1/4W 5% 1/4W		R642 R644 R651	1-249-441-11 1-259-453-11 1-249-405-11	CARBON CARBON CARBON	11K	5% 5% 5%	1/4W 1/6W 1/4W
R4 10 R4 11 R4 12	1-247-713-11 1-247-725-11 1-249-484-11	CARBON IK CARBON IOK CARBON 6.8	5% 1/4W 5% 1/4W 5% 1/2W		R652 R653 R654	1-249-407-11 1-247-903-00 1-249-433-11	CARBON CARBON CARBON	1M 22K	5% 5% 5%	1/4W 1/4W 1/4W
R4 13 R4 14 R4 15	1-247-739-11 1-247-138-00 1-247-700-11	CARBON 100 CARBON 2K CARBON 100	5% 1/2W 5% 1/4W 5% 1/4W		R655 R656 R657	1-249-429-11 1-249-437-11 1-249-429-11	CARBON CARBON CARBON	47K 10K	5% 5% 5%	1/4W 1/4W 1/4W
R4 16 R4 17 R4 18	1-214-937-00 1-249-844-11 1-249-818-11	CARBON 1M CARBON 56K CARBON 4.7K	5% 1/2W 5% 1/2W 1% 1/2W		R65 8 R65 9 R660	1-249-429-11 1-249-429-11 1-249-437-11	CARBON CARBON CARBON	10K 47K	5% 5% 5%	1/4W 1/4W 1/4W
R419 R431 R432	1-247-713-11 1-247-713-11 1-247-713-11	CARBON 1K (WG)CARBON 1I (WG)CARBON 1I			R661 R662 R663	1-249-433-11 1-249-433-11 1-249-422-11	CARBON CARBON CARBON	22K 2.7K	5% 5% 5%	1/4W 1/4W 1/4W
R455	1-247-706-11) 30 5% 1/4W		R664 R701 R702	1-249-396-11 1-259-446-11 1-259-449-11	CARBON CARBON CARBON	5.6K	5% 5%	1/4W 1/6W 1/6W
R456. R457	1-249-469-11 1-247-700-11				R703 R704	1-259-446-11 1-259-461-11	CARBON CARBON	5.6K	5% 5% 5%	1/6W 1/6W 1/6W
R458 R459 R460	1-249-469-11 1-247-713-11 1-247-713-11	CARBON 100K CARBON 1K CARBON 1K	5% 1/4W 5% 1/4W 5% 1/4W		R705	Note:	CARBON	:		

The components identified by mark A or dotted line with mark are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description			
R706	1-259-500-11	CARBON	1M	5%	1/6W
R707	1-259-444-11	CARBON	4.7K	5%	1/6W
R708	1-259-476-11	CARBON	100K	5%	1/6W
R709	1-259-440-11	CARBON	3.3K	5%	1/6W
R710	1-259-440-11	CARBON	3.3K	5%	1/6W
R711	1-259-468-11	CARBON	47K	5%	1/6W
R713	1-259-448-11	CARBON	6.8K	5%	1/6W
R714	1-259-460-11	CARBON	22K	5%	1/6W
R715	1-259-392-11	CARBON	33	5%	1/6W
R716	1-259-468-11	CARBON	47K	5%	1/6W
R751	1-259-446-11	CARBON	5.6K	5%	1/6W
R752	1-259-449-11	CARBON	7.5K	5%	1/6W
R753	1-259-446-11	CARBON	5.6K	5%	1/6W
R754	1-259-461-11	CARBON	24K	5%	1/6W
R755	1-259-460-11	CARBON	22K	5%	1/6W
R756	1-259-500-11	CARBON	1M	5%	1/6W
R757	1-259-444-11	CARBON	4.7K	5%	1/6W
R758	1-259-476-11	CARBON	100K	5%	1/6W
R759	1-259-440-11	CARBON	3.3K	5%	1/6W
R760	1-259-440-11	CARBON	3.3K	5%	1/6W
R761	1-259-468-11	CARBON	47K	5%	1/6W
R763	1-259-448-11	CARBON	6.8K	5%	1/6W
R764	1-259-460-11	CARBON	22K	5%	1/6W
R765	1-259-392-11	CARBON	33	5%	1/6W
R766	1-259-468-11	CARBON	47K	5%	1/6W
R801	1-249-415-11	CARBON	680	5%	1/4W
R802	1-247-804-11	CARBON	75	5%	1/4W
R 803	1-249-417-11	CARBON	1K	5%	1/4W
R 804	1-249-415-11	CARBON	680	5%	1/4W
R 805	1-249-415-11	CARBON	680	5%	1/4W
R 80 6	1-249-417-11	CARBON	1K	5%	1/4W
R 80 7	1-249-417-11	CARBON	1K	5%	1/4W
R 80 8	1-247-903-00	CARBON	1M	5%	1/4W
R 80 9	1-249-417-11	CARBON	1K	5%	1/4W
R 90 2	1-247-727-11	(WG)CARBO	N 10	5%	1/2W
R 90 3	1-247-727-11	(WG)CARBO	N 10	5%	1/2W
R952 R953	1-247-727-11 1-247-727-11	(WG)CARBO		5% 5%	1/2W 1/2W
RT30 1 RT35 1	1-237-455-11 1-237-455-11	RES, ADJ, CARR	BON 50	0	
RV 10 1 RV 102 RV 103 RV 104	1-238-448-11 1-238-446-11 1-238-447-11 1-237-472-11	RES, VAR, CARI RES, VAR, CARI RES, VAR, CARI RES, VAR, CARI	BON 25 BON 25	OK /250k K /500K	((TREBLE) (BASS)
RY301	1-515-501-00	RELAY			
S201 S202	1-571-824-11 1-571-821-11	SWITCH, ROTAR'SWITCH, ROTAR'	Y SLID	E	
S203	1-571-823-11	SWITCH, ROTAR			CTOR-DIGITAL) OUT SELECTOR)
\$204 \$205 \$206	1-571-&28-11 1-571-&7-11 1-571-&2-11	SWITCH, PUSH SWITCH, PUSH SWITCH, ROTAR	(1 KEY) (MUTIN	NG)
	1-571-&5-11 1-571-111-11 1-554-920-31 1-570-307-11	SWITCH, ROTAR SWITCH, PUSH SWITCH, PUSH (E)SWITCH,	(1 KEY (AC PO VOLTA)(CARTE WER)(1 GE CHAI	KEY)(POWER)

Ref.No. Part No.	<u>Description</u>
T1	(Canadian)TRANSFORMER, POWER (AEP)TRANSFORMER, POWER (WG)TRANSFORMER, POWER (E)TRANSFORMER, POWER (UK)TRANSFORMER, POWER
TM501 1-537-235-11 TM501 1-537-235-11 TM501 1-537-227-11 TM501 1-537-228-11	(UK)TERMINAL BOARD(SP) (E)TERMINAL BOARD(SP)(SPEAKER A,B) (AEP)TERMINAL BOARD(SP)(SPEAKER A,B) (WG,Canadian)TERMINAL BOARD(SP)(SPEAKER A,B)
VH1 *1-564-104-00 VH2 *1-564-321-00 VH3 1-564-320-00	PIN, CONNECTOR 3P PIN, CONNECTOR 2P PIN, CONNECTOR 2P
VH4 *1-564-321-00 VH5 *1-565-792-11 VH6 *1-564-321-00 VH8 *1-564-241-00	(AEP,WG,UK)PIN, CONNECTOR 2P PIN, CONNECTOR 2P (AEP,WG,UK)PIN, CONNECTOR 2P PIN, CONNECTOR 4P
VH9 *1-560-595-21 VH9 *1-564-321-00	(E)TERMINAL (WITH BASE) (UK,Canadian)PIN, CONNECTOR 2P
VH11 *1-564-321-00 VH12 1-564-320-00 VH20 1-535-141-00	(E)PIN, CONNECTOR 2P PIN, CONNECTOR 2P (E)BASE POST 22MM (10MM PITCH) 4P
x601 1-577-269-11	VIBRATOR, CRYSTAL (18.43MHz)
ACCESSORY & PAC	KING MATERIAL
	Canadian,UK,E)MANUAL, INSTRUCTION AEP.WG)MANUAL, INSTRUCTION
	AEP,WG)MANUAL, INSTRUCTION
*4-929-221-01 (*4-929-221-11 (E)CARTON Canadian,AEP,WG,UK)INDIVIDUAL CARTON

Note:
The components identified by mark A or dotted line with mark are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par
une marque A sont critiques
pour la sécurité.
Ne les remplacer que par une
pièce portant le numérospécifié.

Published by A/V Engineering Service Dept.